

US Radium Corporation

High and Alden Streets Orange City Essex County

BLOCK: 22A (Main Plant); Various Locations **LOT:** 38 (Main Plant); Various Locations

Community Relations Coordinator: Karen Kloo (609) 777-1971

SITE DESCRIPTION/RESOLUTION OF ENVIRONMENTAL CONCERNS:

This site consists of the former U.S. Radium Corporation plant and numerous noncontiguous commercial and residential properties throughout the municipalities of Orange, West Orange and South Orange. U.S. Radium extracted and purified radium from ore at the above facility between 1915 and 1926, processing approximately one-half ton of ore daily. The radioactive waste materials, or tailings, were disposed of at the plant property and used as fill at off-site locations that were later developed. The U.S. Radium property was subsequently divided into two parcels, one comprised of a commercial property with seven buildings and another containing three vacant lots. In 1979 and 1980, high levels of radon gas and radon progeny were found to pose a risk to people working at the commercial site. Off-site readings were higher than normal but not significant. The perimeter of the main site was fenced to prevent trespassers from coming in contact with the contaminated materials.

In 1983, USEPA added the U.S. Radium facility on the National Priorities List of Superfund sites (NPL) and began a Remedial Investigation and Feasibility Study (RI/FS) to determine the extent of the radium contamination at the on-site and off-site properties. The investigation of the site was conducted under two Operable Units (OU): delineation of the contamination at the numerous off-site properties (OU1), and delineation of the contamination at the former U.S. Radium plant, several adjacent properties and four nonresidential, nonadjacent properties not addressed under the other Operable Unit (OU2).

In 1993 and 1995, after completing the RI/FS, USEPA issued Records of Decision (RODs) with NJDEP concurrence for OU1 and OU2 that required excavation and off-site disposal of radium-contaminated soil and other materials from the U.S. Radium plant and the affected residential and commercial properties. USEPA installed radon mitigation systems and gamma radiation shielding at 10 properties as interim measures to reduce the radiation to acceptable levels prior to implementation of the final remedial actions. The OU1 and OU2 cleanup actions are being implemented in seven phases to facilitate the remedial process. USEPA completed the remedial actions for Phase 1 and Phase 2 (75 properties) in 1998, removing approximately 25,000 cubic yards of radium contaminated soil and other materials. The remedial action for Phase 3 (67 properties) was completed in 1999 and resulted in the removal of approximately 9,000 cubic yards of radium-contaminated materials. The remedial action for Phase 4, which includes the former U.S. Radium facility and 19 other properties, is underway. The original facility buildings were removed in 1999 as part of the remedial action. The remedial action for Phase 5 (37 properties) was completed in 2001 and resulted in the removal of 8,800 cubic yards of contaminated soil. USEPA began the remedial action for Phase 6 (32 properties) in 2001. USEPA also plans to begin the Phase 7 cleanup (10 properties) in 2003. A Remedial Investigation was initiated in 2002 to determine whether the U.S. Radium site has caused contamination of the ground water.